

Claims

What is claimed is:

1. A method of authorizing communications comprising:
  - 5 a) receiving a request for authorization to establish a communication with a destination terminal from an origination terminal;
  - b) generating authorization indicia for the communication, the authorization indicia  
10 configured to enable reservation of resources for the communication; and
  - c) sending the authorization indicia to at least one of the originating and destination terminals to facilitate reservation of resources for the  
15 communication, wherein the at least one of the originating and destination terminals receiving the authorization indicia will send the authorization indicia to at least one network element to reserve resources for at least a  
20 portion of the communication.
2. The method of claim 1 wherein the sending step  
25 comprises sending the authorization indicia to the originating and destination terminals to facilitate reservation of resources for the communication, wherein the originating and destination terminals  
receiving the authorization indicia will send the  
30 authorization to corresponding network elements forming part of the communication path to reserve resources for portions of the communication.
3. The method of claim 1 further comprising verifying the user of the originating terminal is capable of receiving services providing the communication.

4. The method of claim 1 wherein the step of generating authorization indicia comprises authenticating the authorization indicia for use by the at least one  
5 network element.

5. A method of authorizing communications comprising:  
a) receiving a request from at least one of an  
originating terminal and a destination terminal  
10 to reserve resources for a communication between  
the originating terminal and the destination  
terminal, the request associated with  
authorization indicia provided to the  
originating terminal by a service provider and  
15 configured to enable reservation of resources  
for the communication; and  
b) reserving resources for at least a portion of  
the communication based on the authorization  
indicia.

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6. The method of claim 5 wherein the receiving step  
comprises receiving requests from both the  
originating and destination terminals and the  
reserving step comprises reserving resources for the  
25 communication at a first network element associated  
with the originating terminal using the request  
received from the originating terminal and reserving  
resources for the communication at a second network  
element associated with the destination terminal  
30 using the request received from the destination  
terminal.

7. The method of claim 6 further comprising  
provisioning for resources for the communication

over a network between the first and second network elements based on the authorization indicia.

8. The method of claim 5 further comprising  
5 establishing a second communication from the destination terminal to the original destination and reserving resources for at least a portion of the second communication based on the authorization indicia.
- 10 9. A terminal for effecting communications comprising a network interface and a control system associated with said network interface, said control system adapted to:
- 15 a) send a request to establish a communication with a remote terminal over a network to a service provider;
- b) receive authorization indicia configured to enable reservation of resources for the  
20 communication from the communication server in response to the request to establish the communication; and
- c) send a request associated with the authorization  
25 indicia to a network element to reserve resources for the communication wherein the authorization indicia is configured to enable  
the network element to reserve sufficient  
resources for at least a portion of the  
communication.
- 30 10. The terminal of claim 9 wherein said control system is further adapted to effect the communication over a communication path having the reserved resources

with the destination terminal via the network element.

- 5 11. The terminal of claim 10 wherein said control system is adapted to effect a second communication over a second communication path with the destination terminal via the network element.
- 10 12. The terminal of claim 9 wherein said terminal is a cable terminal and said control system facilitates at least one of the group consisting of receiving or transmitting audio and video via the communication.
- 15 13. The terminal of claim 9 wherein said terminal is a telephony terminal and said control system facilitates at least one of the group consisting of receiving or transmitting audio via the communication.
- 20 14. The terminal of claim 9 wherein said terminal is a receiver and said control system facilitates at least one of the group consisting of receiving at least one of the group consisting of audio and video via the communication.
- 25 15. A router for effecting a communication comprising a network interface and a control system associated with said network interface, said control system adapted to:
- 30 a) receive a request to reserve resources for a communication between the originating terminal and the destination terminal, the request associated with authorization indicia provided to the originating terminal by a service

provider and configured to enable reservation of resources for the communication;

b) reserve resources for at least a portion of the communication based on the authorization

5       indicia; and

c) route information to effect the communication.

16. The router of claim 15 wherein said request and authorization indicia is received from a terminal.

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17. The router of claim 15 wherein said request and authorization indicia is received from another router.

15 18. The router of claim 15 wherein said control system is further adapted to forward the authorization indicia to another router along a communication path facilitating the communication to enable reservation of resources for the communication.

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19. The router of claim 15 wherein said control system is further adapted to forward the authorization indicia to a policy server and receive approval for the reservation of the resources for the  
25 communication from the policy server based on the authorization indicia.

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20. A communication server for facilitating communications, said communication server comprising  
30 a network interface and a control system adapted to:  
a) receive a request for authorization to establish a communication with a destination terminal from an origination terminal;

b) generate authorization indicia for the communication, the authorization indicia configured to enable reservation of resources for the communication; and

5 c) send the authorization indicia to at least one of the originating and destination terminals to facilitate reservation of resources for the communication, wherein the at least one of the originating and destination terminals receiving  
10 the authorization indicia will send the authorization indicia to at least one network element to reserve resources for at least a portion of the communication.

15 21. The communication server of claim 20 wherein said control system is further adapted to send the authorization indicia to the originating and destination terminals to facilitate reservation of resources for the communication, wherein the  
20 originating and destination terminals receiving the authorization indicia will send the authorization to corresponding network elements forming part of the communication path to reserve resources for portions of the communication.

25 22. The communication server of claim 20 wherein said control system is further adapted to verify the user of the originating terminal is capable of receiving services providing the communication.

30 23. The system of claim 20 wherein said control system is further adapted to authenticate the authorization indicia for use by the at least one network element.

24. A policy server for approving resource reservation for a router in a network, said policy server comprising a network interface and a control system associated with said network interface, said control system adapted to:

- a) receive a request to approve reservation of resources for a communication from a router, the request including authorization indicia configured to enable reservation of resources for the communication;
- b) determine whether to approve the reservation of resources for the communication based on the authorization indicia; and
- c) send a response to the request to the router indicating whether the request for the reservation of resources was approved.

25. The policy server of claim 24 wherein said control system is further adapted to communicate with a service provider to confirm the reservation of resources is appropriate based on the authorization indicia.

26. The policy server of claim 24 wherein said control system is further adapted to communicate with an authentication service to confirm the authorization indicia is authentic.

27. A computer readable medium comprising software for instructing a computer to:

- a) send a request to establish a communication with a remote terminal over a network to a service provider;

- 5           b) receive authorization indicia configured to  
enable reservation of resources for the  
communication from the communication server in  
response to the request to establish the  
communication; and
- 10           c) send a request associated with the authorization  
indicia to a network element to reserve  
resources for the communication wherein the  
authorization indicia is configured to enable  
the network element to reserve sufficient  
resources for at least a portion of the  
communication.

15           28. The computer readable medium of claim 27 comprising  
further instructions to effect the communication  
over a communication path having the reserved  
resources with the destination terminal via the  
network element.

20           29. The computer readable media of 28 comprising further  
instructions to effect a second communication over a  
second communication path with the destination  
terminal via the network element.

25           30. A computer readable medium comprising software for  
instructing a computer to:

- 30           a) receive a request to reserve resources for a  
communication between the originating terminal  
and the destination terminal, the request  
associated with authorization indicia provided  
to the originating terminal by a service  
provider and configured to enable reservation of  
resources for the communication;



- b) reserve resources for at least a portion of the communication based on the authorization indicia; and
- c) route information to effect the communication.

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31. The computer readable medium of claim 30 comprising further instructions to forward the authorization indicia to another router along a communication path facilitating the communication to enable reservation of resources for the communication.

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32. The computer readable medium of claim 30 comprising further instructions to forward the authorization indicia to a policy server and receive approval for the reservation of the resources for the communication from the policy server based on the authorization indicia.

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33. A computer readable medium comprising software for instructing a computer to:

- a) receive a request for authorization to establish a communication with a destination terminal from an origination terminal;
- b) generate authorization indicia for the communication, the authorization indicia configured to enable reservation of resources for the communication; and

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c) send the authorization indicia to at least one of the originating and destination terminals to facilitate reservation of resources for the communication, wherein the at least one of the originating and destination terminals receiving the authorization indicia will send the authorization indicia to at least one network

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element to reserve resources for at least a portion of the communication.

34. The computer readable medium of claim 33 comprising  
5 further instructions to send the authorization  
indicia to the originating and destination terminals  
to facilitate reservation of resources for the  
communication, wherein the originating and  
10 destination terminals receiving the authorization  
indicia will send the authorization to corresponding  
network elements forming part of the communication  
path to reserve resources for portions of the  
communication.
- 15 35. The computer readable medium of claim 33 comprising  
further instructions to verify the user of the  
originating terminal is capable of receiving  
services providing the communication.
- 20 36. The computer readable medium of claim 33 comprising  
further instructions to authenticate the  
authorization indicia for use by the at least one  
network element.
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